WHAT IS CLAIMED IS:

1. A substrate cleaning device comprising:

a plurality of heat sources, each used for heating or cooling;

temperature controller provided to control a temperature of said plurality of heat sources to allow said plurality of heat sources to be set at different temperatures;

substrate holder to hold a substrate being separated from said heat sources with a gap, and being opposite to said heat sources; and

liquid filler provided to fill said gap with liquid.

2. The substrate cleaning device of claim 1, wherein said plurality of heat sources each have a surface opposite to said substrate along a different concentric circle.

3. The substrate cleaning device of claim 1, wherein said substrate holder is rotated about a center of said substrate and causes said substrate to rotate.

4. The substrate cleaning device of claim 1, wherein said substrate holder is a plurality of chuck pins, and said substrate is in contact with said chuck pins only.

5. The substrate cleaning device of claim 1, wherein said heat sources include a Peltier device.

6. The substrate cleaning device of claim 4, wherein said chuck pins are formed of resin.

7. The substrate cleaning device of claim 6, wherein said resin includes polyvinyl chloride or polychlorotrifluoroethylene.

8. A method for manufacturing an electronic device comprising the

step of etching a surface of a substrate using a substrate cleaning device including:

a plurality of heat sources, each used for heating or cooling;

temperature provided to control a temperature of said plurality of heat sources to allow said plurality of heat sources to be set at different temperatures;

substrate holder to hold a substrate, separated from said heat sources with a gap, and being opposite to said heat sources; and

liquid filler provided to fill said gap with liquid.